IN THE CLAIMS:

1. **(Original)** Method of digitally equalizing sound from loudspeakers placed in a room having a combined loudspeaker/room transfer function, said method comprising placing a microphone in the room, emitting one or more pulses form a loudspeaker through an amplifier and measuring the impulse response in a desired listening position, said method is characterized in the following steps:

a) the measured impulse responses are pre-processed by an algorithm and weighted

b) the output from the pre-processing algorithm is split by an algorithm and adapted to at least two frequency bands using cross-over filters and down sampling

c) the output from the band splitting algorithm is fed to at least two frequency band correction filter design algorithms

d) the output from the band correction filter design algorithms are fed to a delay and amplitude aligning algorithm

e) the output from the aligning algorithm is fed to a post processing algorithm

f) storing and using the output from the post processing algorithm to equalize in real time a sound source that is fed to the amplifier.

2. **(Original)** Method according to claim 1, characterized in that the output from the pre-processing algorithm is divided into typically three frequency bands, said tree bands are low-, mid- and high frequency bands respectively.

3. **(Currently amended)** Method according to claim 1 ~~or 2, characterized in that~~, wherein the output from the pre-processing algorithm is used as an input in a pre-correction algorithm, said pre-correction algorithm having at least one more input adapted to receive an output from one or more optional circuits representing certain acoustic impacts on a sound received in the listening position and said pre-correcting algorithm having an output that is fed to the frequency band correction filter design algorithm.

4. **(Original)** Method according to claim 3, characterized in that one of the optional circuits represents parameters measured from a loudspeaker under ideal conditions in an anechoic room.

5. **(Currently amended)** Method according to claim 3 ~~or 4, characterized in that~~, wherein one of the optional circuits represents parameters derived from psycho acoustic conditions.

6. **(Currently amended)** Method according to claim ~~2-5, characterized in that in~~3, wherein the first 30 ms the reflections in the measured impulse response are attenuated more strongly than in the rest of the impulse response.

7. **(Currently amended)** Method according to ~~claims 1-6, characterized in that~~claim 1, wherein the aligning algorithm comprises aligning functionality for synchronizing the output from the band filters.

8. **(Currently amended)** Method according to claim ~~1-7, characterized in that~~1, wherein the aligning algorithm further comprises scaling and summation functionality.

9. **(Currently amended)** Method according to ~~claims 1-8, characterized in that~~claim 1, wherein the correction is performed in respect of certain part of a room in which the listener is placed.

10. **(Currently amended)** Use of a method according to ~~claims 1-9~~claim 1 in a multi channel set-up of speakers.